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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/553,579  | 04/20/2006  | Daniel Dupuis        | 39438-402800        | 1495             |
| 27717 7590 02/25/2009<br>SEYFARTH SHAW LLP<br>131 S. DEARBORN ST., SUITE 2400<br>CHICAGO, IL 60603-5803 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| NGUYEN, XUAN LAN T  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 3657  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/553,579

**Applicant(s)**

DUPUIS ET AL.

**Examiner**

Lan Nguyen

**Art Unit**

3657

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-16 and 18-31 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 and 18-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/20/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: approved specification

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I in the reply filed on 2/13/09 is acknowledged. The traversal is on the ground(s) that claim 14 has been amended to depend from the elected claim 1. This is not found persuasive because claim 14 and its dependent claims direct toward the prosthetic and not the brake.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

2. Applicant incorporated PCT/CA2003/00092 in the amendment to the specification on 2/13/09. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Oath/Declaration***

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

- It does not identify the citizenship of each inventor.
- Applicant checked the box to NOT claim priority to application 60/463,339.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "56". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "controller", as claimed in claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 8 claims "spaced locations on said second component and said member, respectively." This claimed feature of claim 8 is not understood. Does Applicant

mean "said actuators act between said second component and said member"?

Due to this deficiency, claims 8-12 are being treated as best understood.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3 and 5-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu (5,831,417) in view of Youichirou (JP 03037433).

Re: claim 1, Chu shows a friction brake assembly, in figure 5, to act between a first component, a reel, and a second component, a fishing rod, relatively moveable with respect to said first component components, as in the present invention, comprising: a brake member 339 connected to said first component, a carrier 337 connected to said second component; a friction pad (not shown but inherent in a brake shoe) attached to said carrier for engagement with said brake member; a first actuator 305c including at least one shape memory alloy element, said first actuator being operable upon said carrier to move said friction pad into engagement with said brake member; and a controller 309 to operate selectively said first actuator. Chu lacks a second actuator to release the brake. Youichirou is relied upon to teach a gear brake actuated by two SMA actuators 3 and 6 wherein actuator 3 engages the gear brake 4 while actuator 6 releases the gear brake 4. It would have been obvious to one of ordinary skill in the art

at the time the invention was made to have modified Chu's brake to include a second SMA actuator in order to properly release the brake as taught by Youichirou.

Re: claims 2, 3, 8 and 9, Youichirou teaches a connector 5b connecting first and second actuators to the carrier 2b to ensure a proper braking and releasing of the brake.

Re: claims 5, 6 and 10-12, Chu and Youichirou show said shape memory alloy elements are tensile elements and said controller 309 changes the length of said elements to actuate said brake; wherein said controller supplies an electrical current to respective ones of said elements to change the length thereof as shown in Youichirou's figures 1 and 2. The Examiner takes an Official Notice that having multiple parallel tensile SMA elements instead of one SMA element is a matter of practicality in that the multiple SMA elements would act as back up elements and would have been obvious to one of ordinary skill in the art to have provided redundancy to ensure a proper operation and to increase longevity of the brake assembly.

Re: claim 7, Chu shows the brake member as a drum 339 rotatably mounted on said first component and said carrier 337 is pivotally secured to said actuator 305c and said would be second actuator as modified by Youichirou for movement into or out of engagement with said drum.

Re: claim 13, Chu shows said carrier 337 is pivotally mounted for movement about an axis, at the apex of the triangle, parallel to but spaced from the axis of rotation of said drum 339.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fushiya et al. is cited for another drum brake with a SMA element.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/  
Primary Examiner  
Art Unit 3657



Application/Control Number: 10/553,579  
Art Unit: 3657

Page 8